

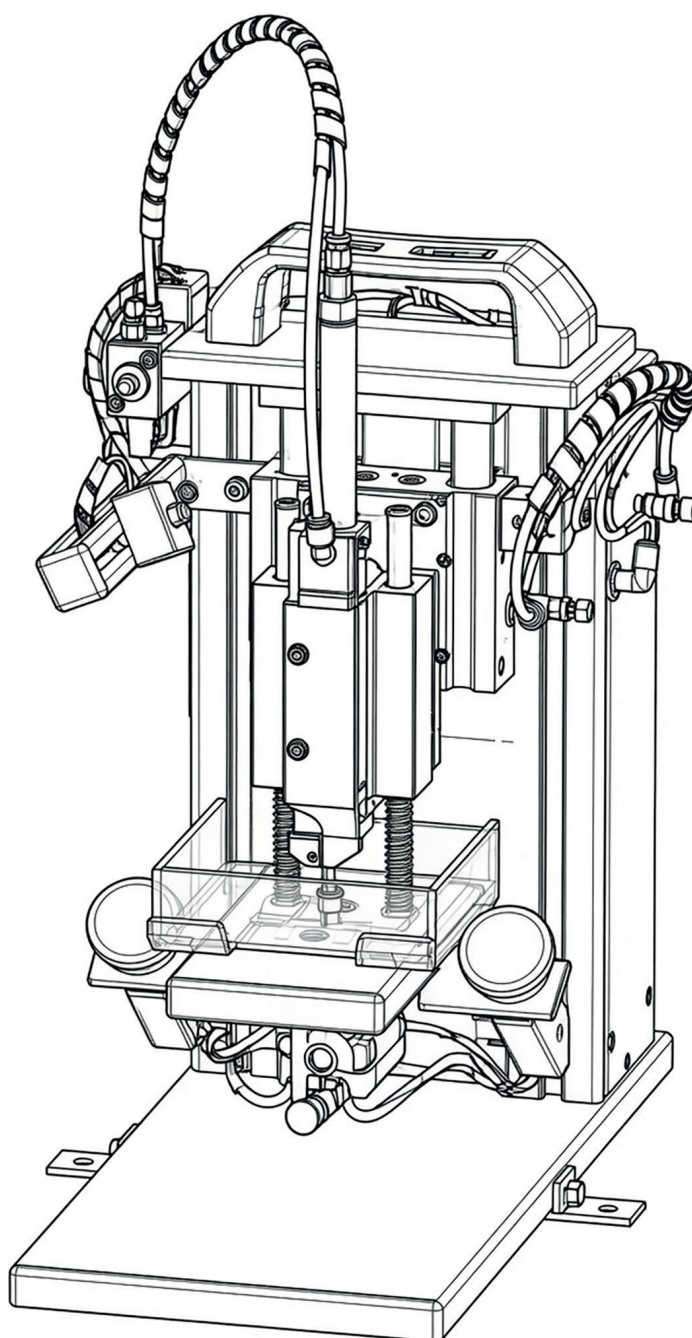
TAGSON®

Tagging & Packaging Technologies

English Manual

Astrid

Automated
apparel tagging machine



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Technical information



APPAREL TAGGING MACHINE
TYPE: ASTRID

Air pressure: 6 bar / 80 psi

Production year: 2025

Made in Slovenia (EU)

Manufactured by:

Stular plus d.o.o.

Cankarjeva ulica 10, 4000 Kranj, Slovenia

www.tagson.eu



Introduction

Thank you for purchasing  TAGSON **Astrid** automated pneumatic tagging machine. A pneumatic portable tagging machine is an innovative and efficient solution designed to streamline the process of attaching fasteners to apparel, offering unmatched flexibility and convenience in various garment manufacturing and retail environments. This versatile device integrates advanced pneumatic technology to facilitate quick, precise, and secure fastening operations, making it an indispensable tool for brands and manufacturers committed to high-quality product presentation and inventory management.

One of the key features that sets this pneumatic tagging machine apart is its compatibility with the Fine Fabric Needle, a specially designed needle that is perfectly suited for ultra-thin materials such as silk, delicate underwear, and other fine fabrics. The Fine Fabric Needle ensures gentle yet effective insertion of fasteners without damaging or puckering sensitive textiles, preserving the garment's aesthetic appeal and integrity. Whether working with lightweight, transparent fabrics or delicate lace, this machine provides a gentle touch that maintains the fabric's quality.

Additionally, this portable tagging machine is equipped with the SPU Avery Dennison module, a renowned component known for its reliability and precision. The integration of the Avery Dennison module allows for seamless compatibility with a wide range of fasteners and tagging accessories, facilitating fast and secure attachment while reducing manual effort and increasing productivity. Its portability makes it easy for operators to manoeuvre around garments, provide on-the-spot tagging, and handle bulk orders efficiently.

Designed to cater to various textile weights—from ultra-lightweight silks and fine fabrics to medium textiles and heavy-duty winter coats—this pneumatic machine provides a comprehensive solution that adapts to the diverse needs of apparel producers and retailers. Its robust yet lightweight construction ensures durability and ease of use, supporting continuous operation even in fast-paced manufacturing settings.

In summary, the pneumatic portable tagging machine with its fine fabric needle and SPU Avery Dennison module offers an innovative, versatile, and reliable solution for apparel tagging. It combines precision, speed, and ease of use to help brands maintain high standards of quality while optimising workflow efficiency across all types of garments, from delicate silks to heavy winter wear.

The main purpose of  TAGSON **Astrid** is to be used for tagging applications.

A manual instruction provides all of the information required to install, operate, troubleshoot, and service. TAGSON automated tagging machine is designed and manufactured in the EU.

Important safety instructions

This manual contains essential information for the protection of users and others from possible injury and/or equipment damage.

Read this manual before using the product, to ensure correct handling, and read the manuals of related apparatus before use.

Keep this manual in a safe place for future reference.

To ensure safety of personnel and equipment, the safety instructions in this manual and the product catalogue must be observed, along with other relevant safety practices.



WARNING! For your safety, the information in this manual must be followed to prevent personal injury or loss of life.

- Before installing the machine or maintenance always switch off main valve disconnect the air supply from the machine.
- to
- Machine should always be on a flat solid surface.
- Before using the machine make sure there is enough light necessary for safe work.
- Do not use the machine for other purposes than apparel tagging.
- Do not put any other objects on the machine and on working area.
- Make sure there are no other persons around the machine when machine is in use.
- Only trained operators can work with the machine. All operators must read safety instructions before use. Conduct a visual inspection of the machine before each use to check for any damage, leaks, or worn parts.
- Wear appropriate personal protective equipment (PPE), including safety gloves and safety glasses, to prevent injury from accidental needle contact or flying debris.
- Any interference with the machine and change operation is prohibited.
- The needles are extremely sharp and can cause serious injury. Keep hands and clothing clear of needles while operating the machine.
- Always install the needle guard whenever the unit is not in use, or when servicing the SPU module. Do not remove or replace the needle without installing the needle guard.
- Do not attempt to disassemble any component while the machine is connected to the air supply.
- Disconnect the air supply before attempting to replace any component.
- Never under any circumstances try to put more than 125 psi (0.86 MPa) into the machine.



CAUTION: Improper use of lubricants may cause machine failure and/or damage to the product.

- Do not use any type of lubricant on the fastener path. Use only compressed air to clean.
- Do not use any solvents on the Swiftach Power Unit.
- Do not operate the machine if it shows signs of malfunction, damage, or if safety features are compromised.

URGENT SAFETY INSTRUCTIONS

- Only use the machine for its intended purpose—attaching fasteners to apparel.
- Ensure the working area is clear of unnecessary personnel or untrained staff
- Only trained personnel should operate pneumatically operated machinery and equipment.
- Maintain a safe distance (+20 cm) from moving parts and other equipment during operation.
- Be aware that the machine may have a single finger switch; ensure your hand remains clear of the needle's path.
- Do not place your fingers, hands, or any body parts underneath or near the needle or moving components during operation.
- When positioning garments or fasteners, keep your other hand away from the machine's operational area to prevent injury.
- Use only the designated finger switch or foot pedal to activate the machine; avoid accidental activation.
- Always disconnect air supply (shut off air supply) when not in use or leaving the workstation unattended.
- Do not operate the machine if feeling unwell or distracted.

Only trained personnel should operate pneumatically operated machinery and equipment. Compressed air may be dangerous should an operator not be familiar with it.

Assembly, handling or repair of pneumatic systems should be performed by trained and experienced personnel.

Do not service machinery/equipment or attempt to remove components the equipment is properly locked and tagged out.

- 1) Inspection and maintenance of machinery/equipment should only be performed after confirmation of safe locked-out control positions.
- 2) When equipment is to be removed, confirm the safety process as mentioned above. Switch off air and electrical supplies and exhaust all residual compressed air in the system.
- 3) Before machinery/equipment is re-started, ensure all safety measures to prevent sudden movement of cylinders etc. (Supply air into the system gradually to create back pressure)



WARNING! Always install the needle guard whenever the unit is not in use, or when servicing the SPU module. Do not remove or replace the needle without installing the needle guard first.

Do not install the product unless the safety instructions have been read and understood.

If air leakage increases, or if the equipment does not operate properly, stop the operation. Unexpected motion can cause injury and equipment damage.

Confirm proper mounting. Check that the piping is not disconnected or crushed. Connect the compressed air supply to the product and perform appropriate functional and leakage inspections to check it is mounted properly.

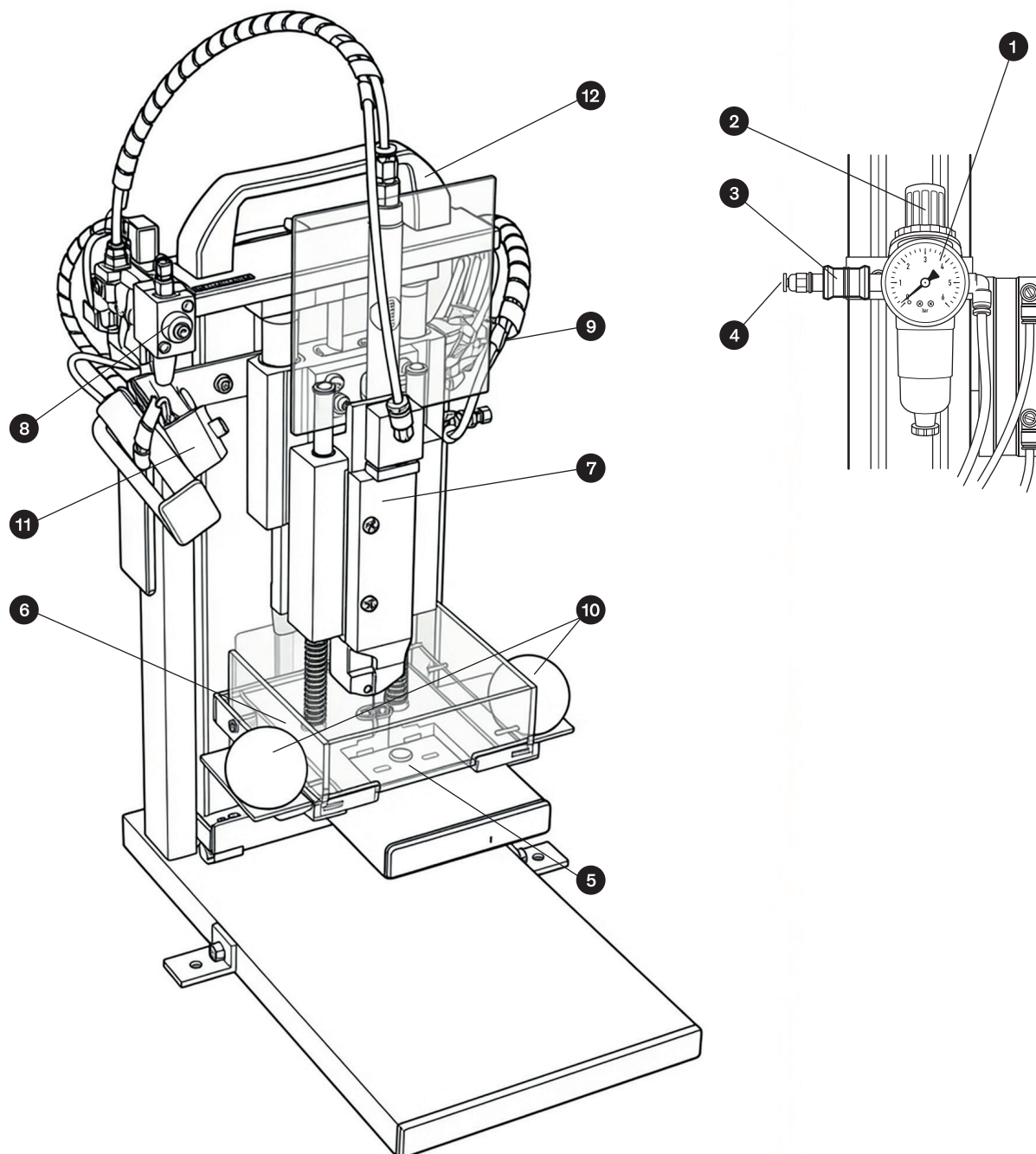
Important:

Always follow local safety regulations and manufacturer instructions. Safety is a shared responsibility — work carefully, consciously, and attentively to prevent injuries.

Disclaimer:

These safety instructions are intended as general guidelines based on European safety standards and should be supplemented by specific instructions from the machine manufacturer. Always adhere to local health and safety regulations and workplace safety policies.

Tagson Astrid parts



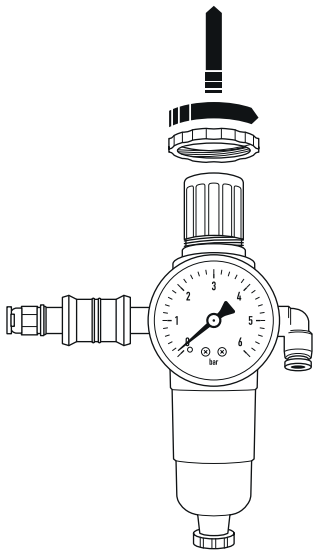
- | | |
|---|---|
| 1 Air filter regulator | 7 SwiftTach Power Unit (SPU) |
| 2 Knob for air level pressure | 8 Ejector rod switch / feed switch |
| 3 Main air valve ON/OFF for the air supply | 9 Speed adjustment screws |
| 4 The main air connector | 10 Soft Finger Switch Left/Right |
| 5 Tagging area | 11 Laser marker |
| 6 Compressing ski foot | 12 Handle |

Unpacking & assembling

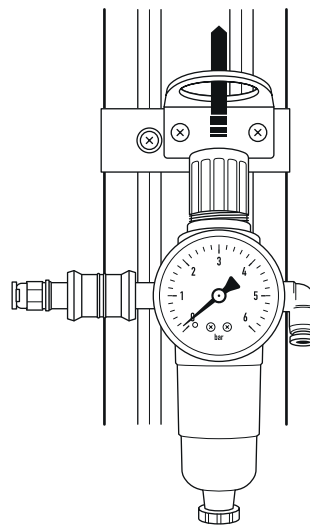


WARNING! Before unpacking please check if there are any damages on the box. If you notice any damages caused by transport agency immediately contact your account representative.

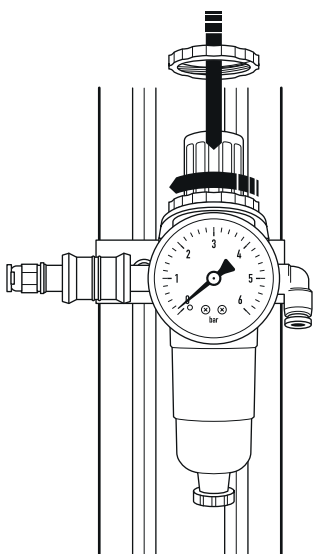
1. Open the box and carefully take out the machine
2. Unwrap the foil. **NOTE:** do not use any knives or sharp objects.
3. Put the machine on the table and install Main Air Filter Regulator by following instructions below:



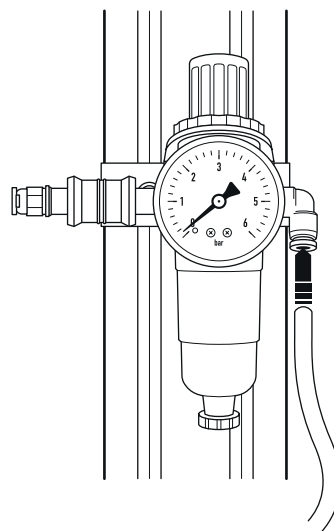
A Unscrew the nut on air regulator.



B Place the main air regulator on the holder.



C Reattach and tighten the nut.



D Connect the hose with the main air regulator.

Installation of air supply with ISO 8573-1



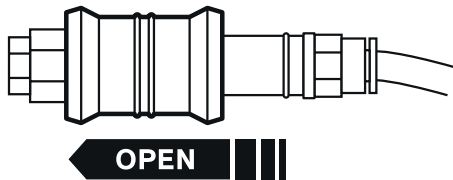
WARNING! Turn off air supply before beginning installation.

Before the first use:

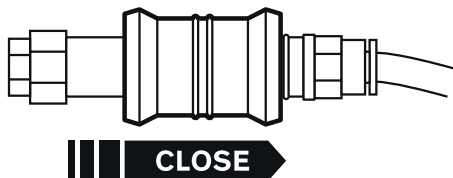
- Read safety and manual instructions.
- Take the machine out of the box and put it on the flat solid surface.
- Close main air valve ③ on the machine before connecting air supply.
- Install air supply hose (see page 8) and open main air valve ③ on the machine.
- Regulate knob for air pressure level ② at the appropriate pressure (80 psi – 6 bar).
- Operate with the machine (see page 9, 10).

Before installing air to the machine make sure that main air supply valve ③ is closed. Install hose to the air line ④ in a vertical position on main air supply valve ③. Open main air supply valve ③.

To open main air supply valve ③ push it to the left.



To close main air supply valve ③ push it to the right.



Install hose to air line ④ in a vertical position on filter regulator ① so that air flow is in the direction of arrow stamped on the unit's body.

Blow out the air line to remove scale or other foreign matter before installing the Filter/Regulator.

NOTE: Be sure air line is clean and emptied of water. Air lines tend to condense moisture from the atmosphere and precautions must be taken to prevent water from entering the attaching unit.

Before operating the SPU, pressurize the air line with knob ② and check for leaks.

NOTE: Air supply should be regulated by a knob for air pressure level ② at the appropriate pressure (80 psi).



CAUTION: use air supply between 40-100 psi. Optimal air installation is 80psi.

Swiftach power unit (SPU) by Avery Dennison

TAGSON tagging machine has built-in your desired Swiftach Power Unit **7** (module). By changing the modules you also change type of the fasteners. The module is the main device that runs fasteners through the power unit. It is pneumatically operated and uses an air range between 40 and 100 psi.

There are six basic Avery Dennison modules available:

Standard module SPU1M (standard fasteners):

- Short needle SPU1M03
- Long needle SPU1M01
- Ultra Long needle (NEW)

Fine module SPU2M (fine fabric fasteners):

- Short needle SPU2M04
- Long needle SPU2M02
- Extra Long needle (optional)

Operations

This chapter explains how to operate the Tagson tagging machine.

NOTE: Before operating, please check the air level supply. Air supply must be 80psi (6 bar).



WARNING! Always install the needle guard whenever the unit is not in use, or when servicing the SPU module. Do not remove or replace the needle without installing the needle guard first.

1. LOADING FASTENERS

All clip fed fasteners are loaded into the power modules through the “T” shaped opening on the side of the module nose. Either end of the fastener clip can be loaded into the tool.

- Gently push the clip into the nose until you hear and feel a “click”. This will ensure that the clip has bottomed out and will not easily pull back.

NOTE: One cannot use standard fasteners on Fine Fabric module (SPU2M) or fine fasteners on standard module (SPU1M). To avoid jams and needle breaks, we recommend premium quality fasteners by Avery Dennison.

2. UNLOADING FASTENERS

- Remove a clip of fasteners by pulling the clip straight back in the opposite direction as when loading the clip. You will feel some resistance from the spring-loaded detent.

NOTE: Machine has an ejector rod switch **7** in the front left upper corner. By pressing and holding the switch, you will activate the ejector rod. Holding the switch with one hand, one may safely remove the fastener clip from the module with the other hand.

3. CHOOSING PROPER LENGTH FASTENERS

The proper stroke length usually depends on the clearance needed to load the items under the SPU's needle. Please note that the shorter the stroke, the faster the cycle time.

All units should be connected to a filter/regulator to protect and control the SPU.

The thickness of the items to be fastened when compressed must never exceed the working length of the needle which is used. The spoon opening in the needle must penetrate the items in order for the fastener to toggle during insertion.



WARNING! Under no circumstances should the dual anti-tie down hand switch be altered or replaced with a foot pedal or other actuation device.

4. STARTING

Before starting, the following steps should be double checked:

- Air supply: filter regulator on the machine must be 80psi (6 bar).
- Needle position: the lowest point must be about 0.5 cm below the needle plate.
- Clear the working area.



CAUTION: Always wear protective glasses to prevent eye injuries and gloves.

How it works:

To complete the operation, machine has 3 cycles:

CYCLE A: by pressing and holding the finger switches or foot pedals, module goes down

CYCLE B: when the module is at its lowest position, the machine activates the ejector rod

CYCLE C: by releasing the finger switches or foot pedal, module goes up

NOTE: For finger switch activation, to activate press one of finger switches with one hand (left switch for left handed, right switch for right handed).

Starting to operate the machine:

- Load the fasteners
- Press switch for ejector rod **8** a few times to make sure the module ejects the fasteners properly
- Slide the product (apparel) underneath the ski foot and position it by using laser marker
- Laser marker (red dot) will show where the needle will tag the product
- With one hand place the label in cut in area on the ski foot
- With the other hand press the finger switch, or use the foot pedal, and hold them in place

NOTE: left or right switch is for left or right handed people

- While holding switch, the module will go down to its final position and eject the fastener through the label and product
- Release the switch to lift the module to its upper position
- Remove the product from the working area

Adjustments

1. ADJUSTING THE SPEED OF THE MODULE: cycle A, C

You can also adjust the speed of the cycle A (module goes down) and cycle C (module goes up). On the right side of the machine, there are two adjustment screws.

By loosening the speed adjustment screw, the speed will increase. When you fasten the screw, the speed will be reduced.

Lower screw: speed adjustments for cycle A

Upper screw: speed adjustments for cycle C



CAUTION: Very high speed can lead frequent cases of needle breaking.

NOTE: Turn the screws gently. Settings are extremely sensitive.

2. ADJUSTING TIMING OF EJECTOR ROD: cycle B

With the ejector rod screw (on the top of Feed Switch) you can adjust the timing of the ejector rod (cycle B). By gently turning the screw, you will set the timing of the ejector rod.

NOTE: The optimal setting of the “cycle B” is when the ejector rod launches the fastener while the module is 0.5 sec in its lowest position.

Replacements

1. REPLACING THE NEEDLE

Needles may wear out or damage over time, and they should be visually checked regularly to ensure that the point is not bent, distorted, blunt or burred in any way, and that the shaft is straight. A damaged needle will damage fabric, so be sure to check thoroughly.

NOTE: If the needle has broken or has been damaged during operation of the tool, it is likely that the ejector rod has also been damaged. Check the ejector rod to verify that it is not bent or binding before replacing the needle. If damaged, refer to replacing the ejector rod on page 13.

Disassembly

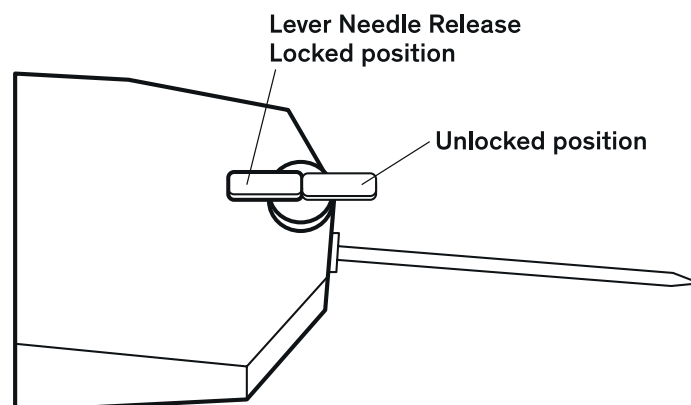


WARNING! Needles are extremely sharp and can puncture skin with very little pressure. Take extreme care and always install the needle guard whenever handling the needle.

Should replacement of a needle be necessary, disconnect the air supply and remove any fasteners that may be in the feed area prior to changing needles.

All units have a push button needle lock mechanism. They are immediately adjacent to the needle on the nose of the power unit. Holding the shaft of the needle with one hand, turn the needle lock lever towards the point of the needle until the needle can be pulled straight out of the module nose.

NOTE: If the needle cannot be removed easily, or if it is jammed, contact your account representative.



Assembly



WARNING! Always install the needle guard whenever the unit is not in use, or when servicing the SPU module. Do not remove or replace the needle without installing the needle guard first.

1. Insert the replacement needle with the needle guard attached.
2. Align the slot in the needle with the slot in the tool.
3. Return the needle lock to the original locked position as shown.
4. Check that the needle is secure by pulling on the needle's shaft.
5. Remove the needle guard.



WARNING! Make sure the needle is securely locked before restarting the tool.

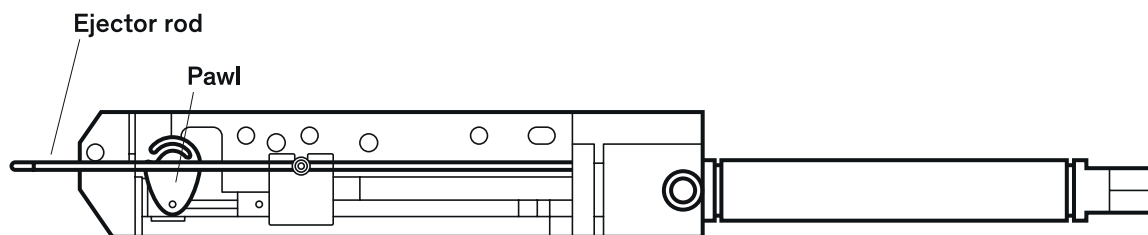
2. REPLACING EJECTOR ROD



WARNING! Prior to any maintenance or repair, the air supply must be switched off.

In order to replace the ejector rod, please take the following steps:

1. Turn off the air supply
2. Remove the front cover.
3. Remove the ejector rod.
4. Replace the ejector rod aligning the guide pin in the slot (see SPU parts list for proper replacement part).
5. Close the front cover.



3. REPLACING PAWL/FEED

Should the clip fasteners not move after activation to the next position, change the pawl/feed part. After a while, the pawl feed can be damaged and will not move the clip forward to its next position.



WARNING! Prior to any maintenance or repair, the air supply must be switched off.

In this case, replace the pawl as follows:

1. Turn off the air supply
2. Remove the front cover
3. Remove the ejector rod
4. Replace the pawl
5. Insert the ejector rod
6. Close the front cover

Routine maintenance

This chapter explains the routine maintenance of the Tagson tagging machine. After finishing, always clear the machine with the air blow gun , especially in the needle plate.



WARNING! Prior to any maintenance or repair, the air supply must be switched off.



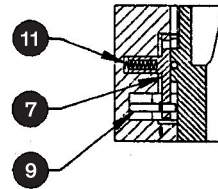
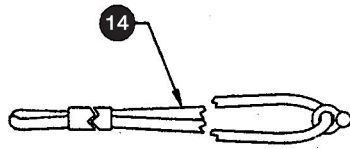
WARNING! Always install the needle guard whenever the unit is not in use, or when servicing the SPU module. Do not remove or replace the needle without installing the needle guard first.

Compressed air is required to operate the machine, and the air supply should be free of moisture or other contaminants. The supply must be capable of sustaining a line pressure of at least 80 psi for table mount units such as Tagson portable tagging machine.

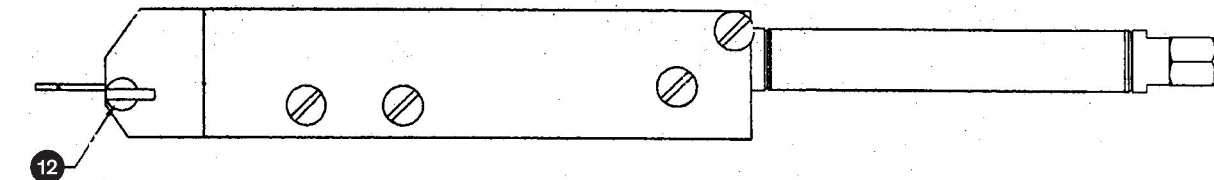
Air supply should be regulated by a filter/regulator set **2** at the appropriate pressure (80 psi).

Spare parts list

Fine Fabric Module with Long and Short Ejector Rod (SPU2M02 and SPU2M04)



SECTION A - A



Locked
Position
Shown

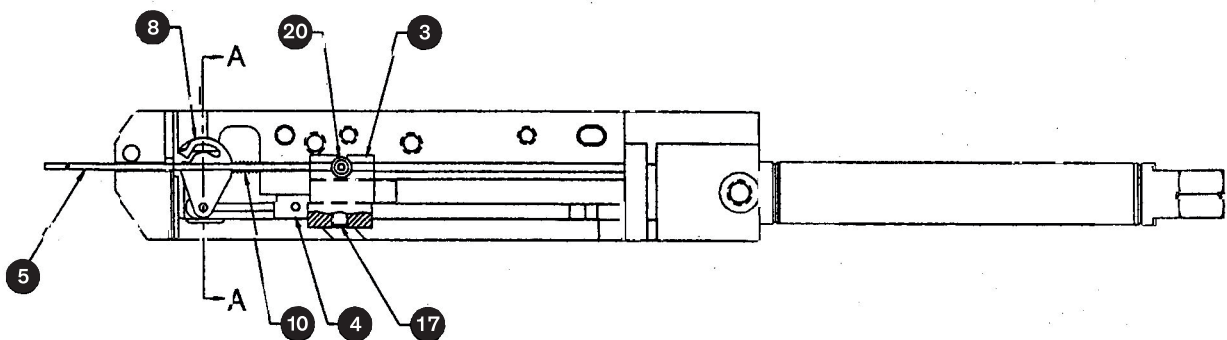
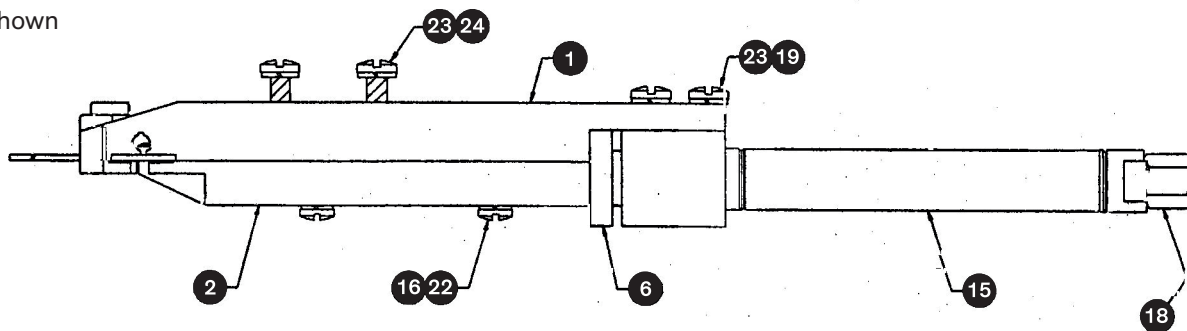


Table: Fine Fabric Module with Long and Short Ejector Rod (SPU2M02 and SPU2M04)

ITEM	PART NUMBER	DESCRIPTION	QTY
1	7-60-8394-01	BODY, RIGHT	1
2	7-60-8397-01	BODY, LEFT	1
3	7-60-4416-01	SLIDE	1
4	7-60-4417-01	SLIDE, INDEX	1
5	7-60-8393-01	EJECTOR ROD, LONG	1
5	7-60-8393-02	EJECTOR ROD, SHORT	1
6	7-60-4419-01	SPACER	1
7	7-60-2107-01	DETENT, VARIABLE PITCH	1
8	7-60-2108-01	PAWL, FEED, VARIABLE PITCH	1
9	7-60-2112-01	INDEX SLIDE LINK	1
10	0-051-261-05	SPRING COMPRESSION .088" OD 3/8" L, 1/4 LB	1
11	0-051-217-05	SPRING COMPRESSION	1
12	7-60-1118-01	NEEDLE LOCK	1
14	7-60-0700-15	ASSY, LANYARD	1
15	7-60-4593-01	AIR CYLINDER	1
16	0-001-550-12	SCREW 6-32X5/8 PAN HD	2
17	0-003-167-11	SCREW SET 8-32X3/16 PAN HD	1
18	7-60-2714-01	ORIFICE	1
19	0-001-550-24	SCREW 8-32X1/2, PAN HD	2
20	7-60-8392-01	PIN	1
22	0-061-152-05	WASHER #6 LOCK SPLIT	2
23	0-061-152-06	WASHER #8 LOCK SPLIT	4
24	0-004-001-38	SCREW CAP 8-32X5/8 SKT.HD	2

Trouble shooting

This chapter describes symptoms, possible causes and solutions to problems one may encounter when operating the Tagson tagging machine.

Symptom	Cause	Action
Fasteners breaking	Fastener size too small regarding sock thickness	Use larger fastener
	Card stock too tough	Add holes to card stock
	Bad material of the fasteners	Chose Avery Dennison polypropylene or nylon premium fasteners
Fastener not completely applied	Ejector rod launched too soon	Adjust timing of ejector rod
	Needle does not deep enough into the needle plate	Adjust height of the module. Needle must be 0.5 cm under needle plate
Fastener pulling out	Card stock too weak/thin	Change card stock
	Fastener pulling back through hole	Use larger fastener
Module does not go to its final position	Too thick socks	Use thinner socks. Max thickness approx. 40 mm
		Change module with extra long needle to increase thickness to 50 mm.
	Ski foot or module hits the guide	Clear working surface. Remove guides.
Fasteners are not feeding consistently	Feed pawl may be worn and needs to be replaced	Change the pawl feed inside the module
Ejector rod jumps out of the needle	Banded ejector rod or needle	Change ejector rod or needle
Water or oil dripping from the needle, cylinder or tool	The filter/regulator may be filled with water and/or oil.	Filter needs to be emptied or replaced. Also check the main air supply for condensation build-up.
Unit not cycling properly	Not enough air pressure	Air pressure must be 80 psi



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